Gulf of Mexico Harmful Algal Bloom Bulletin

10 February 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

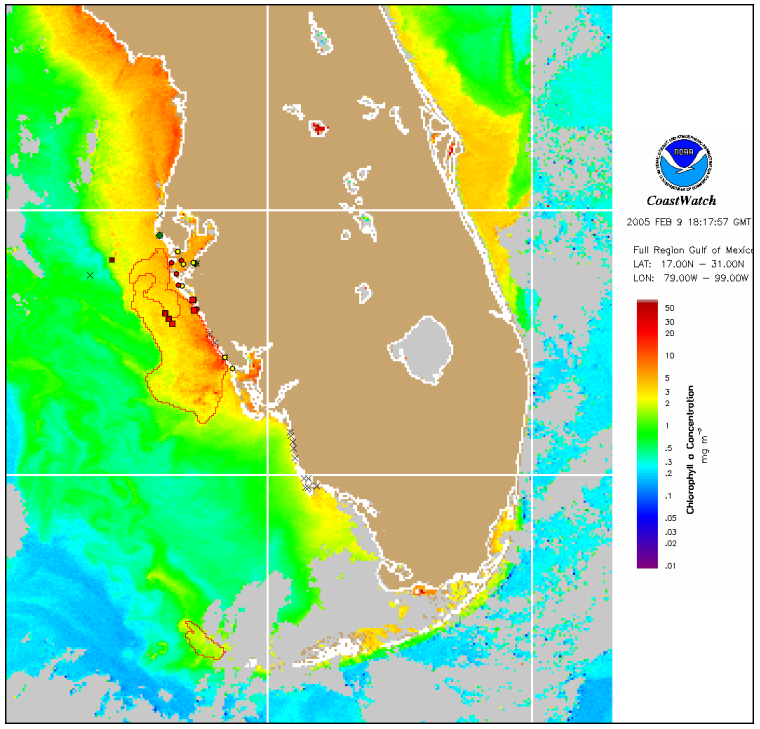
Last bulletin: February 7, 2005

Conditions: A harmful algal bloom has been identified off southern Manatee and Sarasota Counties. Low impacts are expected in southern Manatee County, patchy moderate impacts are expected at Sarasota County beaches through the weekend.

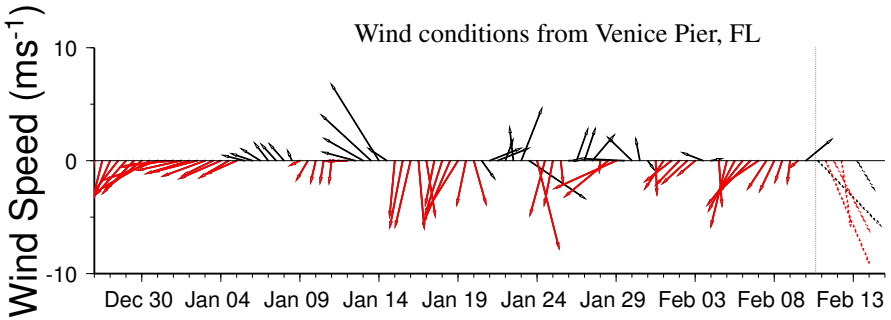
A harmful algal bloom has also been identified north and south of the lower Keys at Moser Channel. Reports of discolored water are possible.

Analysis: The *K. brevis* bloom persists between Tampa Bay and Charlotte Harbor, extending from approximately 27°38'N to 26°23'N along it's North/South axis, and 82°18'W to 82°55'W along its East/West axis. The bloom is onshore from Bradenton to Englewood Beach, in northern Charlotte County, and the southern extent of the bloom is approximately 10 miles offshore Captiva Island. High cell counts were reported February 3 in northern Sarasota County. Reports of fish kills, respiratory irritation, and discolored water have been reported from Siesta Key to Venice. Chlorophyll levels are high (12-15μg/L) near Venice, otherwise ranging from about 4μg/L on the western edge to 8-10μg/L along the east and southern edges. This bloom will continue to move steadily south through the weekend, at as much as 20 miles per day, and may reach Captiva as early as late Saturday or early Sunday.

The bloom currently located north of the lower Keys has moved through Moser Channel, and the southern edge lies in Hawk Channel. Clouds currently obscure the extent of the bloom. Northerly winds through Saturday and easterlies Sunday and Monday favor southwest transport of the bloom. Chlorophyll levels are still above 3μg/L on the north side of Marathon, but will begin to decrease as the rest of the bloom moves through the channel. Fish kills were reported north of the lower Keys and northeast of Key West. Discolored water is likely near Seven Mile Bridge. -Stolz and Vincent

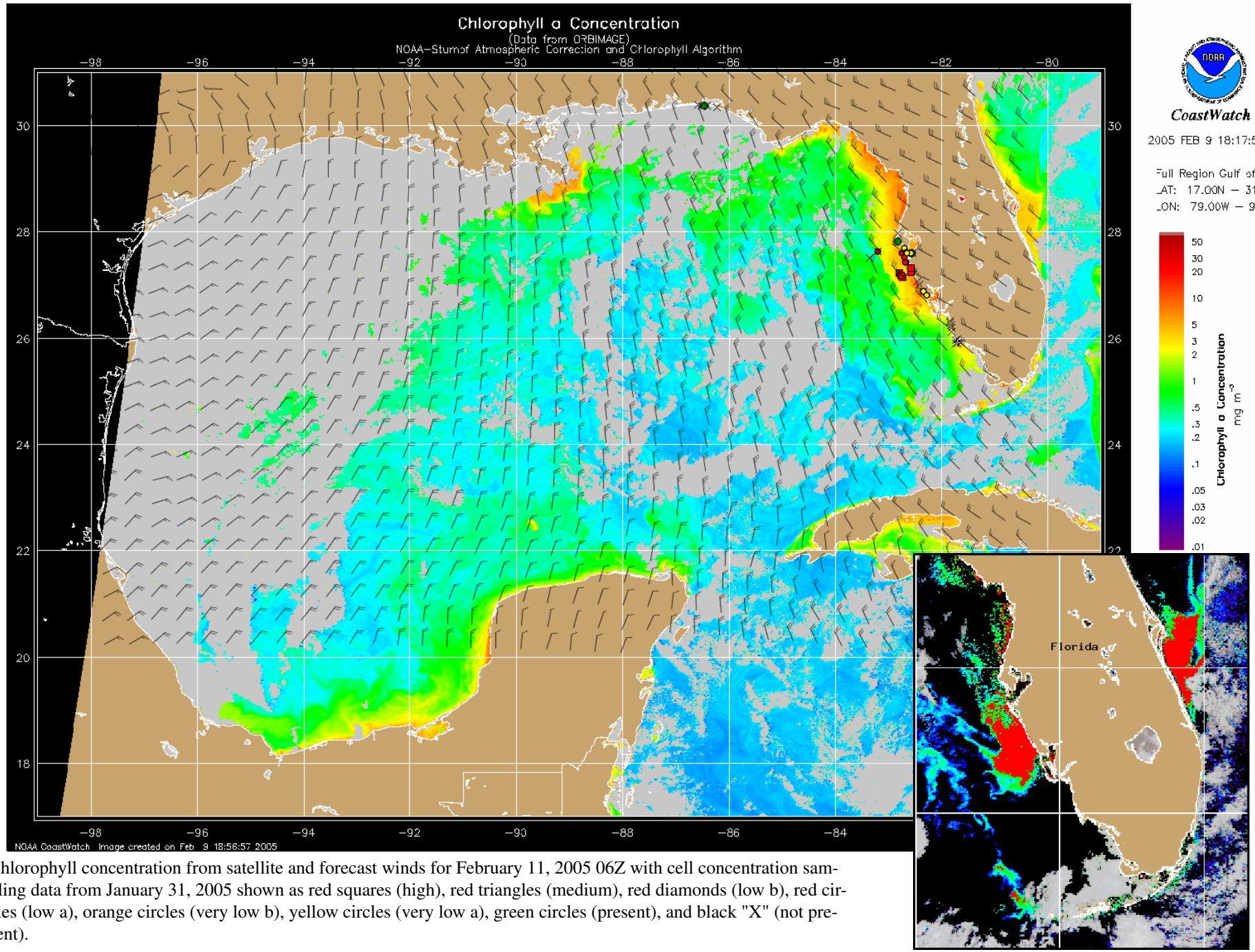


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 31, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Venice: Northwest winds tonight becoming northerly through Saturday at 15-20 knots (7-10 m/s). Weak southeast winds Sunday clocking to the south by Monday, at 10-15 knots (5-7 m/s). Keys: Westerly winds this afternoon increasing to 25 knots (13 m/s) from the northwest to north tonight. Northerly winds tomorrow and Saturday easing to 15-20 knots (7-10 m/s), becoming easterly Sunday and Monday at 15 knots (7 m/s).



Chlorophyll concentration from satellite and forecast winds for February 11, 2005 06Z with cell concentration sampling data from January 31, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Sand Key, FL